

Date: Thursday, 20/11/2008 3:34:44 PM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : SPACER BLOCK
<b>Job Number</b> : 43609	
<b>Estimate Number</b> : 10251	
<b>P.O. Number</b> :	<b>Part Number</b> : D3193041
<b>This Issue</b> : 20/11/2008 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3193 REV C
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : 11 <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : C
<b>Previous Run</b> : 37651A	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 20/12/2008 <b>Qty:</b> 6 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : JCD 08.11.21	
<b>Comment</b> : Est Rev:A New Issue 05-11-05 JLM Est Rev:B Change Rivet Lengh 07-03-19 JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M6061T6B2500X03500	6061-T6 Bar 2.50 x 3.50
<b>Comment:</b> Qty.: 0.5156 f(s)/Unit Total : 2.0622 f(s) Material: 6061-T6/T651 (QQ-A-225/8 or QQ-A-200/8). (M6061T6B2.500x03.500) Identify for D3193-1 Batch: M105212 <i>mk 08/11/24</i> (7)		
2.0	BAND SAW	BAND SAW
<b>Comment:</b> BAND SAW Cut blanks: 3.500" x 2.500" x 5.900" long Bar <i>mk 08/11/24</i> (7)		
3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
<b>Comment:</b> HAAS CNC VERTICAL MACHINING #1 1-Machine as per Folio FA374 and Dwg D3193 Identify as D3193-1 2-Deburr and Tumble <i>H.A. 08/11/27</i> (7)		
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
<b>Comment:</b> INSPECT PARTS AS THEY COME OFF MACHINE <i>H.A. 08/11/27</i> (7)		
5.0	QC8	SECOND CHECK
<b>Comment:</b> SECOND CHECK <i>JLM/08.12.03</i> (7)		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3193-041 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes (No) DQA: D Date: 08/12/18  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: 43609		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/11/27	3.0	Material is under tolerance before machining 1 part	OS/10/2 ↓	Moved Y origin to machine both sides	08/11/27 H.A	08-12-02	OS/10/2 ↓	S 08/12/02
08.12.03	3	SMALL FLAT ON ONE SIDE OF PART NEAR .0058 HOLES FROM UNDERSIZED MAT'L R.C:	CP 08.12.02 per OS/10/2	PART ACCEPTABLE. e/d FOR BOLT & RIVET HOLES > .5.	08/12/02 B.A	08-12-02	CP 08.12.02 per OS/10/2	S 08/12/02

NOTE: Date & initial all entries

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Drawing Name: SPACER BLOCK

Job Number: 43609

Part Number: D3193041

Job Number:



Seq. #:

Machine Or Operation:

Description:

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*Handwritten initials*

*08-12-09*

*(x7)*

7.0

POWDER COATING

POWDER COATING



*M109152*



*(7X)*

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

*2:10 OF*  
*323*  
*2:40*

*m-h 08/12/10*

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



*(7)*

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*FF 08/12/10*

9.0

MS20426AD37

RIVET



Comment: Qty.: 8.0000 Each(s)/Unit Total: 32.0000 Each(s)

Pick:

Qty Part Number

Description Batch

8 MS20426AD3-7

Rivet

*M17694*

*SS 08/12/11 (x7)*

10.0

MS21073L4

NUTPLATE



Comment: Qty.: 4.0000 Each(s)/Unit Total: ~~16.0000~~ Each(s)

Pick:

Qty Part Number

Description Batch

4 MS21073L4

Nut Plate

*M102254 x5 M103693 x19*

*23 FF*

*SS 08/12/11 (x7)*

11.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3193-041 as per Dwg D3193

*FF 08/12/17*

*(7)*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Drawing Name: SPACER BLOCK

Job Number: 43609

Part Number: D3193041

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/12/17 (x7)

13.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/12/18 (x7)

Job Completion



UMF 08-12-17

12.1 Packaging Identity & stock.

loc ST462 New

08/12/17 (x7)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

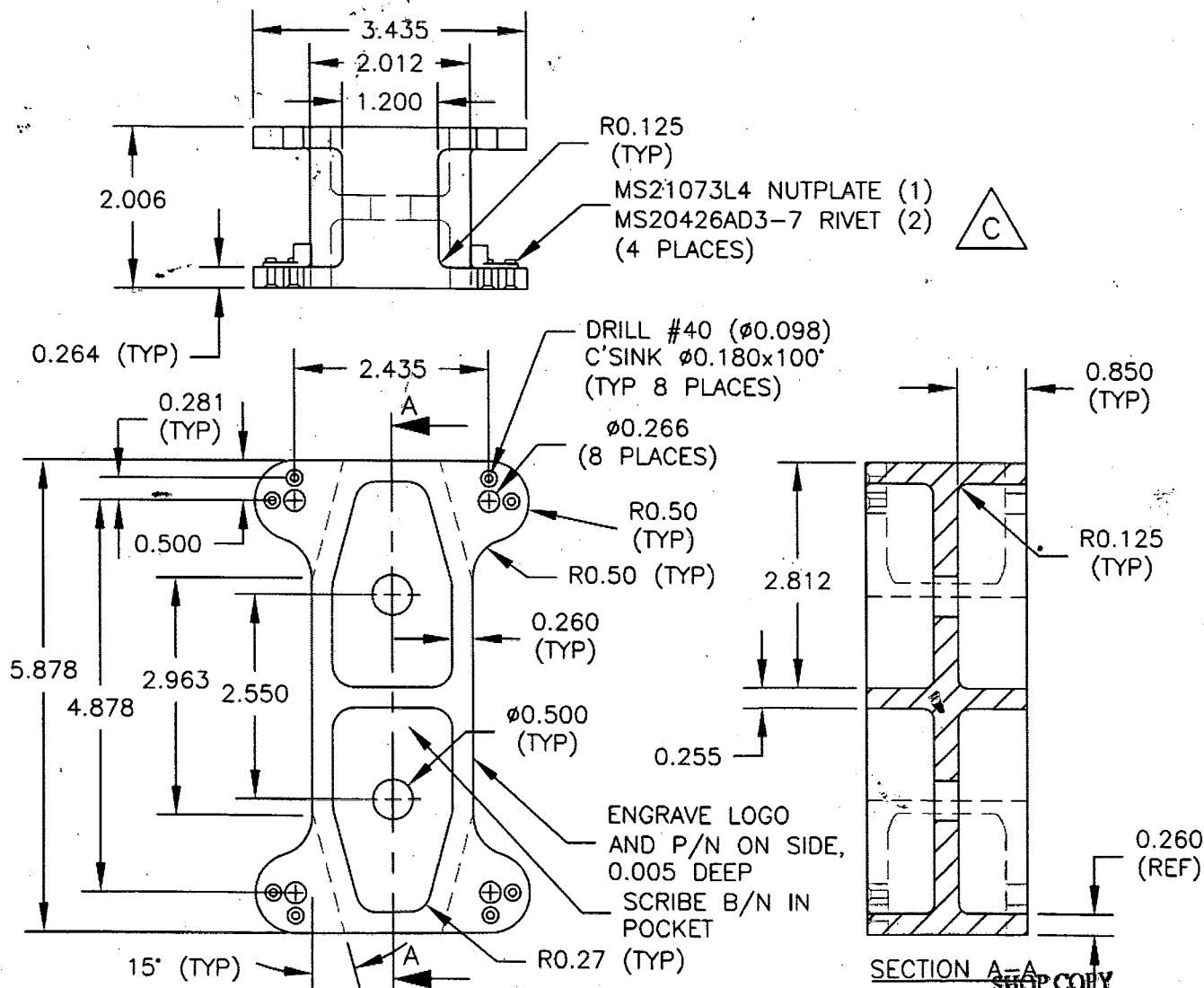
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN UP	DRAWN BY JH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED UP	APPROVED JH	DRAWING NO. D3193	REV. C SHEET 1 OF 1
DATE 05.09.29		TITLE SUPPORT BRACKET ASSEMBLY	SCALE 1:2
A	03.06.09	NEW ISSUE	
B	03.12.22	MANUFACTURED BY DART	
C	05.09.29	MS20426AD3-7 WAS MS20426AD3-5	

RELEASED  
05-09-30



D3193-041 SUPPORT BRACKET ASSEMBLY (D3193-1 SUPPORT BRACKET)

- 1) MATERIAL: 6061-T6 ALUMINUM (QQ-A-225/8 OR QQ-A-200/8) (REF DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SECTION A-A  
SHOP COPY  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 43009

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<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	43609
<b>Description:</b> Support Bracket		<b>Part Number:</b>	D3193-1
<b>Inspection Dwg:</b> D3193	<b>Rev:</b> C	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.435	+/-0.010	3.436	✓			
2.012	+/-0.010	2.012	✓			
1.200	+/-0.010	1.200	✓			
2.006	+/-0.010	2.0065	✓			
R0.125	+/-0.010	R0.125	✓			
2.435	+/-0.005	2.436	✓			
0.281	+/-0.005	0.280	✓			
0.264	+/-0.010	0.263	✓			
5.878	+/-0.010	5.878	✓			
4.878	+/-0.005	4.878	✓			
2.550	+/-0.010	2.548	✓			
15°	+/-0.5°	15°	✓			
0.260	+/-0.010	0.260	✓			
R0.500	+/-0.030	R0.500	✓			
Ø0.266	+0.006/-0.001	Ø0.272	✓			
Ø0.098	+0.004/-0.001	Ø0.100	✓			
Ø0.180 x 100°	+0.005/-0.001	Ø0.179 x 100°	✓			
0.850	+/-0.010	0.848	✓			
R0.125	+/-0.010	R0.125	✓			
0.255	+/-0.010	0.256	✓			
2.812	+/-0.010	2.810	✓			

<b>Measured by:</b> N.A	<b>Audited by:</b> [Signature]	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08/11/27	<b>Date:</b> 08-12-03	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue	KJ/DD [Signature]	[Signature]